

# Tropical Winds

The Official Newsletter of WFO Miami



## Summer 2015 Issue

Dan Gregoria- April 2013

Welcome to the next issue of Tropical Winds. We will begin discussing what is expected for the remainder of the 2015 Rainy season. After that we will also take a look back at an outlook on the 2015 Hurricane Season as well as an introduction to new tropical cyclone products that will be issued this hurricane season. To close out this edition of Tropical Winds, we will interview one of our meteorologists about his career and how he got into the field of Meteorology.

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## Weather Outlook



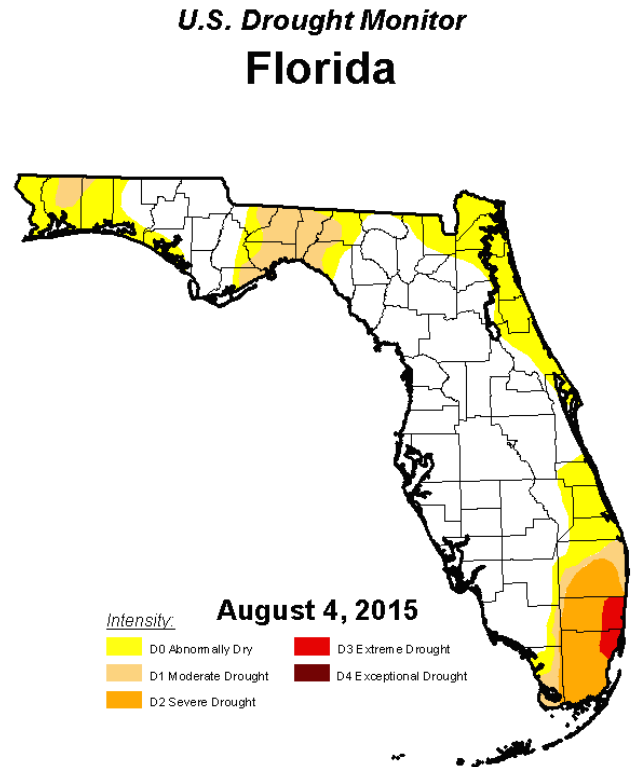
By: Robert Molléda

Dan Gregoria- February 2013

### **2015 RAINY SEASON UPDATE/OUTLOOK**

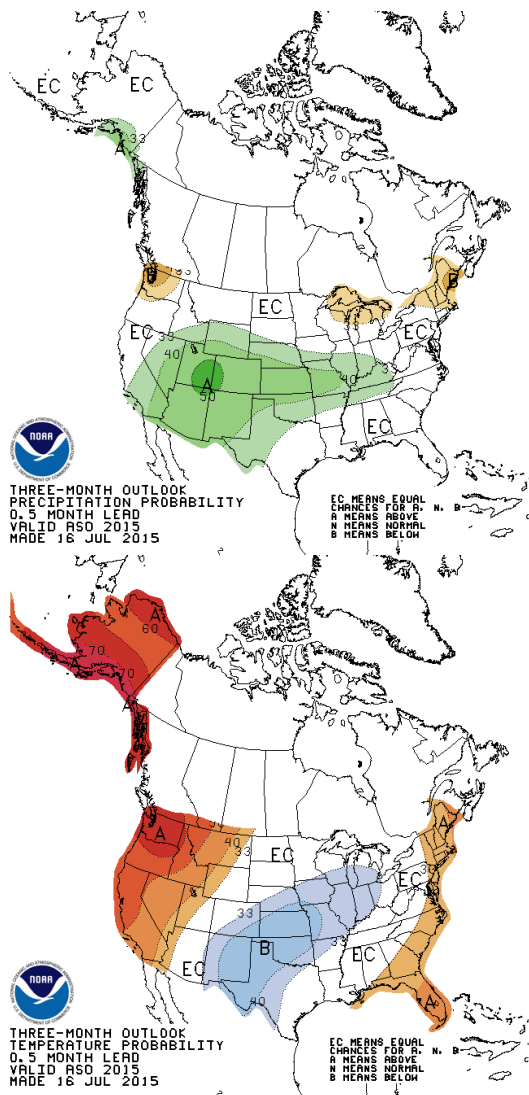
The first half of the 2015 rainy season has been a tale of two coasts. Persistent east winds have focused much of this season's precipitation over the interior and western sections of the south Florida peninsula. As a result, areas from greater Naples to west of Lake Okeechobee have received near to

above-normal rainfall. On the other hand, southeast Florida, including the Miami, Fort Lauderdale and West Palm Beach metro areas, has received well below normal rainfall. This disparity in rainfall from one side of the peninsula to the other can be illustrated by comparing rainfall amounts between two representative locations. LaBelle in western Hendry County has measured 19.53 inches of rain from May 1<sup>st</sup> to July 23<sup>rd</sup>, while Fort Lauderdale/Hollywood International Airport has measured only 4.7 inches during that same period. Fort Lauderdale is running a staggering 12 inches below normal for the June 1<sup>st</sup> to July 23<sup>rd</sup> time frame. Most of southeast Florida is running rainfall deficits of 6 to 12 inches since June 1, resulting in very low groundwater levels for mid-summer and the continuation of extreme drought conditions across metro Miami-Dade and Broward counties (as of August 4th). This is shown in Figure 1 on this page.



*Figure 1: Drought Conditions across Florida at the beginning of August .*

The outlook for the rest of the rainy season by the NOAA Climate Prediction Center is for equal chances of above, below and near normal precipitation across south Florida, along with the likelihood of above-normal temperatures as shown in figure 2 on the next page.



**Figure 2: Three Month Outlook for Precipitation and Temperatures .**

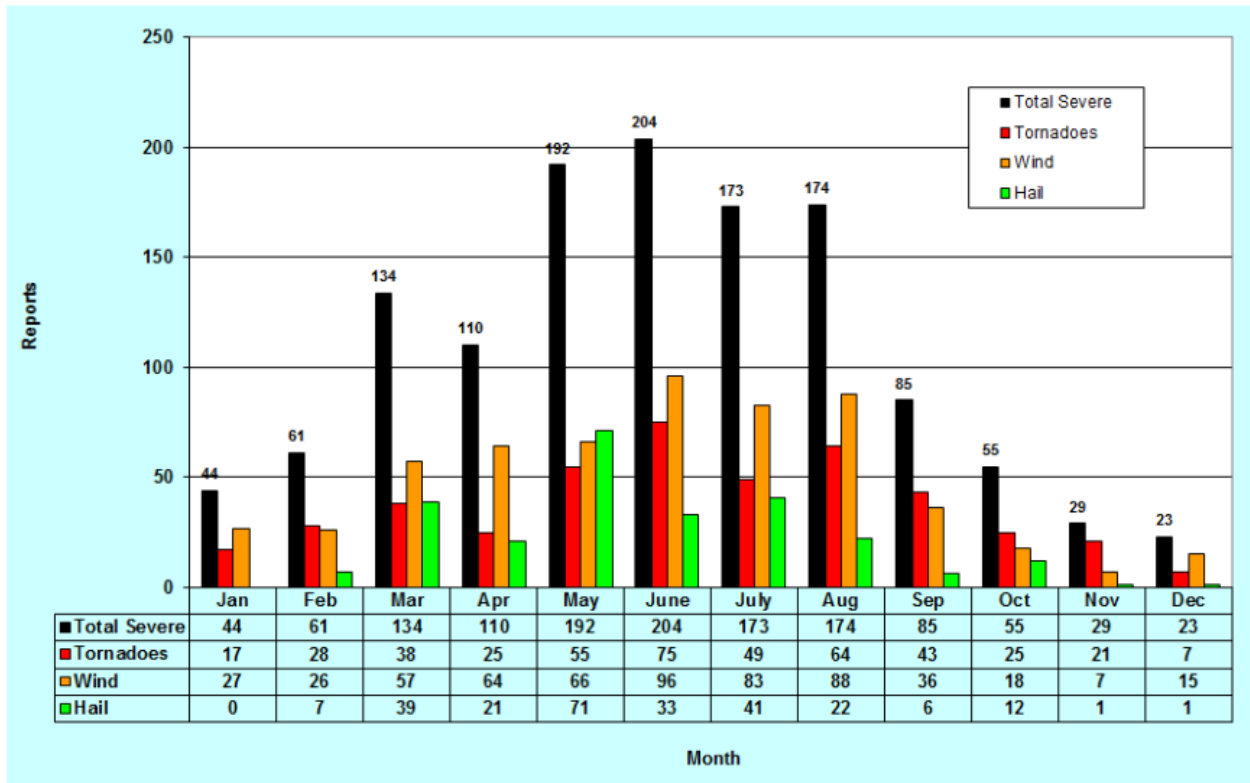
The outlook is an average of possible conditions over a three-month period, with daily and/or weekly conditions varying significantly from the average. This means we will likely experience alternating periods of wet and dry conditions through October. A wild-card this time of year is always tropical systems

which can affect south Florida during the peak of hurricane season. These tropical systems, including tropical waves, tropical storms and hurricanes, can bring copious rains to our area in a very short time.

Therefore, South Floridians should prepare for potential impacts of both wet and dry conditions. A drier-than-normal second half of the rainy season would likely continue drought conditions, water usage restrictions and a higher-than-normal risk of wildfires, while wet conditions can act to rapidly improve drought conditions but lead to an increased flood threat. This flood threat is more pronounced over western sections of south Florida where increased rainfall this summer has led to saturated grounds.

In addition to flooding and our historical vulnerability to tropical storms and hurricanes (see next section on Hurricane Season), the second half of the rainy season can bring occasional storms with frequent lightning and even tornadoes. See figure 3 below for a monthly distribution of severe weather occurrences. Rip currents are also a threat, especially during

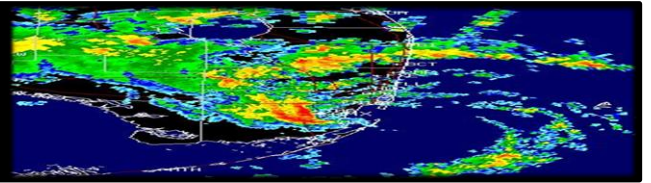
periods of moderate to strong onshore winds.



*Figure 3: Monthly Distribution of Severe Weather for southern Florida (1950-2012 Tornadoes & 1955-2012 Wind/Hail).*

Please visit our website: [weather.gov/southflorida](http://weather.gov/southflorida) for daily forecasts and severe weather warnings and outlooks.

# Hurricane Season



Tropical Storm Bonnie- July 2010

*By: Dan Gregoria*

It's hard to believe it's been 10 years since hurricane Wilma. In fact, Wilma was the last hurricane to make landfall in Florida. This is the longest period in state history without a hurricane landfall.

National Weather Service (NWS) Meteorologists at Miami know that it's just a matter of time until the next hurricane hits our area. We want you to know what to plan and prepare for whenever that time comes. With this in mind, we have developed graphics to help with just that! They are called the "Hurricane Threat & Impact" (HTI) graphics.

The HTI graphics show the threat level for the following hazards associated with tropical storms and hurricanes: Wind, Storm Surge, Flooding Rain, and Tornadoes

The graphics take into account the official forecast from the National Hurricane Center as well as important probabilistic information, which take into account

uncertainties in track, strength, and size of tropical systems. It is extremely important to account for the uncertainty and not rely merely on the deterministic forecast. This is exactly what these graphics are designed to do. The NWS Miami office will update the graphics after each NHC advisory. The graphics are meant to answer a simple question: What should I be preparing for? This question is answered relative to each of the hazards. When answering the question you need to consider where you are in the event. Remember the graphics are updated with each advisory and so you want to see how the graphics trend with each advisory and consider that information until you get to a point where you can wait no longer and need to put your plans into action following the recommendations of your local officials. That is normally when you are placed under a warning. But this is predicated on

you having an action plan already in place.

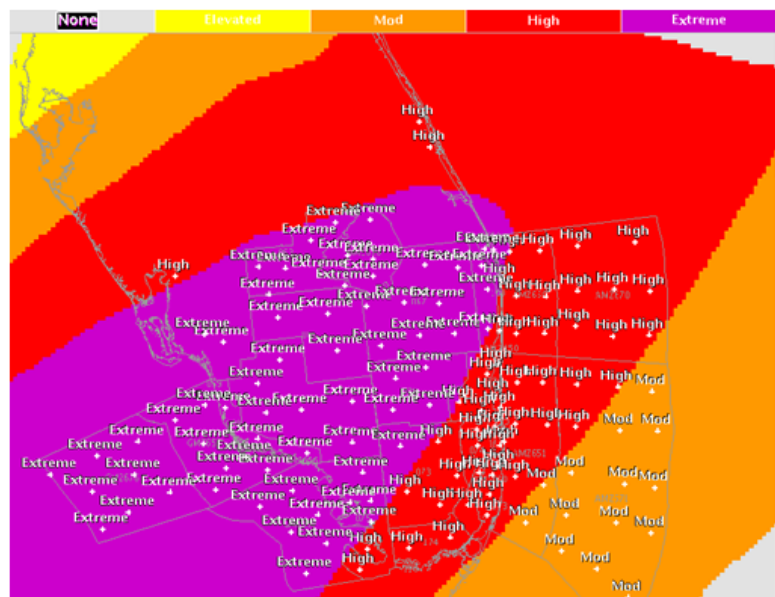
If you need help with getting a plan ready, please visit:

[ready.gov](https://ready.gov)

[readysouthflorida.org](https://readysouthflorida.org)



# Hurricane Threat & Impacts



***Shows What to Prepare For When a Hurricane Threatens South Florida***

Wind Threat	Potential Wind Impacts
<b>EXTREME</b> Threat for wind greater than 110 mph	<b>DEVASTATING TO CATASTROPHIC</b> To be safe, aggressively prepare for the potential of devastating to catastrophic wind impacts from major hurricane force wind of equivalent Category 3 intensity or higher.
<b>HIGH</b> Threat for wind 74-110 mph	<b>EXTENSIVE</b> To be safe, aggressively prepare for the potential of extensive wind impacts from hurricane force wind of equivalent Category 1 or 2 intensity.
<b>MODERATE</b> Threat for wind 58-73 mph	<b>SIGNIFICANT</b> To be safe, earnestly prepare for the potential of significant wind impacts from strong tropical storm force wind.
<b>ELEVATED</b> Threat for wind 39-57 mph	<b>LIMITED</b> To be safe, prepare for the potential of limited wind impacts from tropical storm force wind.
<b>LITTLE TO NONE</b> Wind less than 39 mph	<b>LITTLE TO NONE</b> No immediate preparations needed; little to no wind impacts.

The example above is for the Wind Hazard. In this case, if you live anywhere within the purple area it means you are facing an extreme threat of major hurricane force

winds (Wind > 110 mph). It does not mean everywhere in that area winds will be that high or even expected. It indicates that the threat is there and therefore appropriate planning and



preparedness should follow suit accordingly.

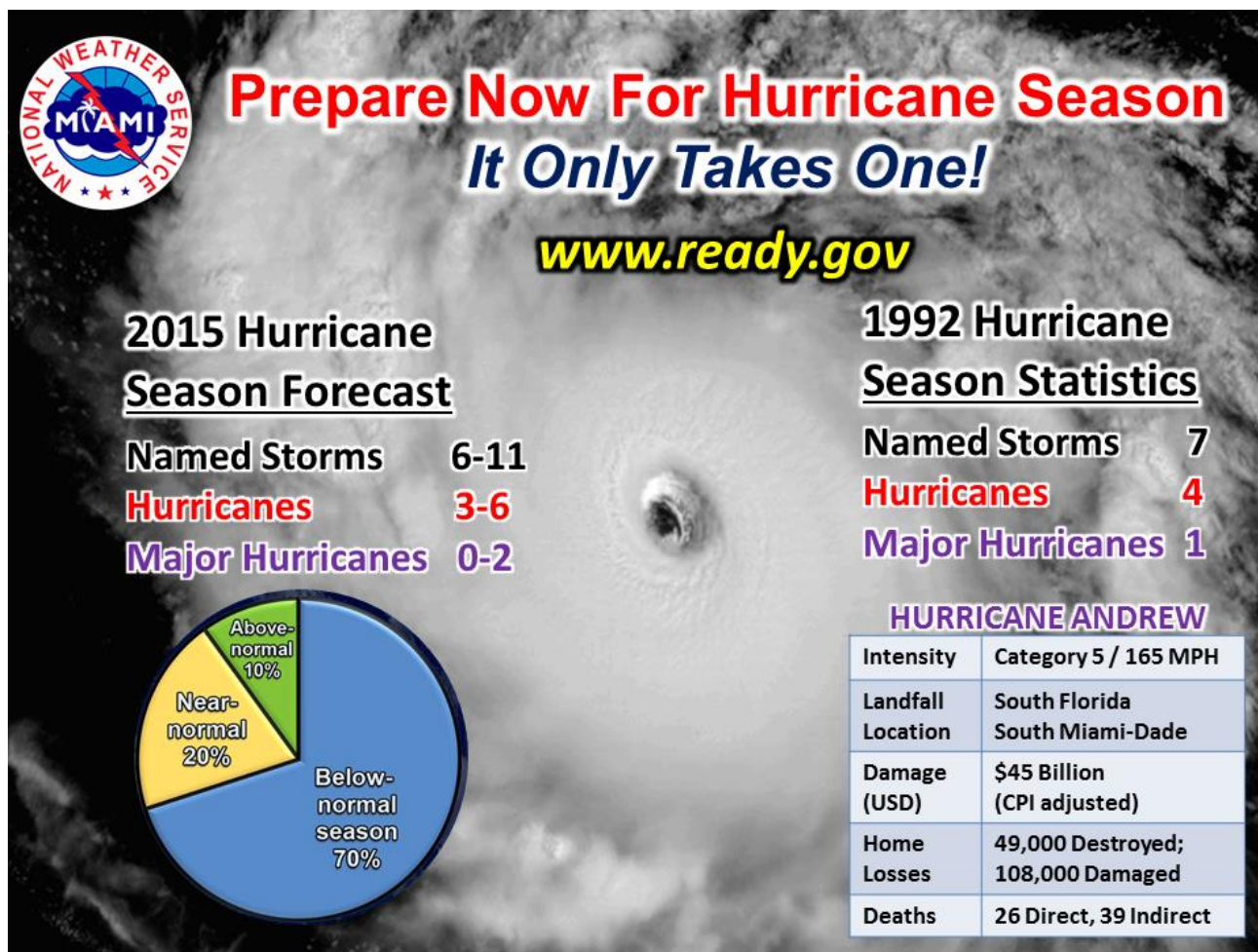
These graphics will be accessible on [weather.gov/southflorida](http://weather.gov/southflorida) whenever a Tropical Storm or Hurricane Watch or Warning is in effect. A fully interactive website will be accessible from our page that will allow you to access this information through an interactive map along with detailed text information describing the what, when, how strong, duration of the event for your location. This is the local threat and impact based information you will not find in the Hurricane Center Products.

The graphic below shows the forecast for the 2015 hurricane season.

A below average season is likely. However, this does not in any way mean that we can let our guard down. Take 1992 as an example. That year saw about half the average activity, but had devastating impacts on South Florida.

For excellent information on hurricane preparedness, please visit:

[ready.gov](http://ready.gov)  
[readysouthflorida.org](http://readysouthflorida.org)



# Employee Spotlight

*By: Chuck Caracozza  
and Barry Baxter*



Dan Gregoria- February 2013

**Barry Baxter, Meteorologist**

**1. How did you get interested in meteorology?**

I was struck by lightning when I was 8 years old playing baseball. Curiosity of why I was struck by lightning turned into a hobby which led into wanting to become a Meteorologist.

**2. Where did you go to school?**

I went to Florida State University in Tallahassee, FL from 1989 to 1994 and graduated with a Bachelors of Science in Meteorology.

**3. What was the most difficult class? Why?**

My most difficult class was Calculus. The teacher could barely speak English so it was difficult for me to understand what he was teaching. I decided to get a tutor to help me understand the material, and I barely passed the class.

**4. Tell me about your NWS career so far.**

I started as a contractor in Washington D.C with the National Weather Service from 1995 through 1997. After that I went to a temporary internship in Atlanta, GA with the National Weather Service during the summer of 1998. Then I went back to Washington D.C in the Fall of 1998 to work as a contractor for the Network Control Facility (NCF) and then became a lead meteorologist at NCF. After this I went to work to the National Weather Service forecast office in Cleveland, OH, in the fall of 2001 as a meteorologist intern . I stayed there until the summer of 2002 when I got promoted to a general forecaster for the National Weather Service forecast office here in Miami, FL. I have been a general forecaster at this office for the past 13 years. As of August 2015, I will have work for the National Weather Service for 15 years.



5. What's the best/worse part of your job?

The best part of the job is that I love to forecast the weather and issue warnings for South Florida knowing that I am protecting life and property. The worst part of this job is working rotating shift work, especially the midnight shifts.

6. What do you do when you are not working?

I spend time with my wife and two kids going to events as well as visiting family in Orlando, FL and sometimes when I get a chance I like to do some storm chasing.



*Editor-in-Chief... Chuck Caracozza, Meteorologist*

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*Barry Baxter, Meteorologist*

*Robert Mollada, Warning Coordination Meteorologist*



*Questions or Comments? Please e-mail us at*  
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